Claims

1. An absorbent assembly comprising:

a main absorbent part composed of a highly absorbent polymer and absorbent fibers, a crepe paper sheet wrapped around said main absorbent part, the major surfaces of said main absorbent part being hot-melt bonded to said crepe paper sheet, and a liquid permeable sheet arranged on a portion of said crepe paper sheet wrapped around one of the major surfaces of said main absorbent part; wherein

the weight ratio of said highly absorbent polymer to the total weight of said highly absorbent polymer and absorbent fibers of said main absorbent part is set to 40 wt% or higher, said main absorbent part being pressurized and reduced in thickness,

said liquid permeable sheet being formed, at least in part, of polyethylene terephthalate as a component thereof.

2. The absorbent assembly according to claim 1 wherein said liquid permeable sheet is also formed, in part, of hollow polyethylene terephthalate.

3. The absorbent assembly according to claim 1 or 2 wherein a delayed crystallization adhesive is used for hot melt bonding between said one major surface of said main absorbent part and said crepe paper sheet, and a water-proofing adhesive is used for hot-melt bonding between the opposite major surface of said main absorbent part and said crepe paper sheet.

4. The absorbent assembly according to claim 3 wherein the surface of said main absorbent part is substantially planar and has been processed with embossing.

5. The absorbent assembly according to claim 1 wherein the weight per unit area and the density of said highly absorbent polymer are not less than 300 gsm and not less than 150 kg/m^3, respectively, and the overall thickness of said highly absorbent polymer is not more than 2 mm.

6. The absorbent assembly according to claim 1 wherein the overall thickness of said main absorbent part is 1.0 to 1.8 mm and the density of said highly absorbent polymer is not less than 300 kg/m^3.

7. A diaper wherein

lateral side edges of a front body area and a back body area are unified together to form a trunk opening area and left and right thigh opening areas, with an absorbent assembly being formed at a center area,

said absorbent assembly being arranged between a liquid permeable top sheet and a liquid impermeable back sheet,

said absorbent assembly including

a main absorbent part composed of a highly absorbent polymer and absorbent fibers, a crepe paper sheet wrapped around said main absorbent part, the major surfaces of said main absorbent part being hot-melt bonded to said crepe paper sheet, and a liquid permeable second sheet arranged between said top sheet and the crepe paper sheet, wherein

the weight ratio of said highly absorbent polymer to the total weight of said highly absorbent polymer and absorbent fibers of said main absorbent part is set to 40 wt% or higher, said main absorbent part being pressurized and reduced in thickness,

said liquid permeable sheet being formed at least in part of polyethylene terephthalate as a component thereof.

8. An absorbent product comprising:

an absorbent assembly arranged between a liquid permeable top sheet and a liquid impermeable back sheet;

said absorbent assembly being arranged between the liquid permeable top sheet and the liquid impermeable back sheet,

said absorbent assembly including

a main absorbent part composed of a highly absorbent polymer and absorbent fibers, a crepe paper sheet wrapped around said main absorbent part, the major surfaces of said main absorbent part being hot-melt bonded to said crepe paper sheet, and a liquid permeable second sheet arranged between said top sheet and the crepe paper sheet, wherein

the weight ratio of said highly absorbent polymer to the total weight of said highly absorbent polymer and absorbent fibers of said main absorbent part is set to 40 wt% or higher, said main absorbent part being pressurized and reduced in thickness,

said second sheet being formed, at least in part, of polyethylene terephthalate as a component thereof.